



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0502; Project Identifier 2018-CE-043-AD]**

**RIN 2120-AA64**

#### **Airworthiness Directives; B-N Group Ltd. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain B-N Group Ltd. Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as failure of the rudder final drive rod because of cracks in the region of the taper pins. This proposed AD would require repetitively inspecting the rudder final drive rod assembly and replacing the rudder final drive assembly, if necessary. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Britten-Norman Aircraft Limited, Commodore House, Mountbatten Business Centre, Millbrook Road East, Southampton SO15 1HY, United Kingdom; phone: +44 20 3371 4000; fax: +44 20 3371 4001; email: [info@bnaircraft.com](mailto:info@bnaircraft.com); website: <https://britten-norman.com/approvals-technical-publications/>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0502; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68<sup>th</sup> Avenue, Denver, CO 80249; phone: (303) 342-1094; email: [penelope.trease@faa.gov](mailto:penelope.trease@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0502; Project Identifier 2018-CE-043-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68<sup>th</sup> Avenue, Denver, CO 80249. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0153, dated July 19, 2018 (referred to after this as “the MCAI”), to correct an unsafe condition for B-N Group Ltd. (Britten-Norman Aircraft Ltd., or “BNA”) Models BN-2, BN-2A, BN-2B, BN-2T, BN-2T-2, BN-2T-2R, and BN-2T-4R airplanes. The MCAI states:

Occurrences have been reported of failures of the rudder final drive rod, [part number] P/N NB-45-0991. Cracks were found in the region of the taper pins. There is evidence that replacing the taper pins could be a significant factor contributing to the failure of this rod.

This condition, if not detected and corrected, could lead to failure of the affected part, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, BNA issued the applicable SB [service bulletin], providing inspection instructions. Prompted by operator comments, BNA revised the applicable SB (issue 3) to introduce repetitive inspections.

For the reason described above, this [EASA] AD requires repetitive inspections of the affected part and, depending on findings, replacement. This AD also prohibits replacement of taper pins on an affected part. BNA will amend the applicable Maintenance Manuals accordingly.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0502.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Britten-Norman Aircraft Limited Service Bulletin Number SB 363, Issue 3, dated May 23, 2018, and Service Bulletin Number SB 364, Issue 3, dated May 23, 2018. For the applicable airplane models identified on each document, this service information contains procedures for repetitively inspecting the rudder final drive rod assembly and replacing the rudder final drive assembly, if necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

### **FAA's Determination**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed AD Requirements in this NPRM**

This AD requires accomplishing the actions specified in the service information already described.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 76 airplanes of U.S. registry. The FAA also estimates that inspecting the rudder final drive assembly would take about 1 work-hour at the average labor rate of \$85 per work-hour.

Based on these figures, the FAA estimates the cost of this proposed AD on U.S. operators to be \$6,460, or \$85 per product, each inspection cycle.

In addition, the FAA estimates that any necessary follow-on actions to replace the rudder final drive assembly would take about 5 work-hours and require parts costing \$1,200, for a cost of \$1,625 per product. The FAA has no way of determining the number of airplanes that may need these actions.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**B-N Group Ltd.:** Docket No. FAA-2021-0502; Project Identifier 2018-CE-043-AD.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to B-N Group Ltd. Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R airplanes, all serial numbers, certificated in any category, with a rudder final drive rod part number (P/N) NB-45-0991 installed.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 2720, Rudder Control System.

#### **(e) Unsafe Condition**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as failure of the rudder final drive rod because of cracks in the region of the taper pins. The

FAA is issuing this AD to detect and correct defects on the rudder final drive rod assembly to prevent failure of the assembly. The unsafe condition, if not addressed, could result in loss of rudder control and reduced airplane control.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspection and Corrective Action**

(1) Inspect the rudder final drive rod assembly for loose taper pins, loose end connections, bending, and cracks within the applicable compliance times for your airplane specified in paragraph (g)(1)(i) or (ii) of this AD.

(i) For Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, and BN-2B-27 airplanes, within 100 hours time-in-service (TIS) after the effective date of this AD and thereafter at intervals not to exceed 1,000 hours TIS.

(ii) For Models BN-2T and BN-2T-4R airplanes, within 200 hours TIS after the effective date of this AD and thereafter at intervals not to exceed 1,000 hours TIS.

(2) If a loose taper pin, a loose end connection, any bending, or a crack is found during any inspection required by paragraph (g)(1) of this AD, before further flight, replace the rudder final drive rod assembly by following section 7, Removal and Installation Instructions for Unserviceable Units, of Britten-Norman Service Bulletin Number SB 363, Issue 3, dated May 23, 2018 (SB 363, Issue 3) or Britten-Norman Service Bulletin Number SB 364, Issue 3, dated May 23, 2018 (SB 364, Issue 3), as applicable to your model airplane.

(3) If no loose taper pins, no loose end connections, no bending, and no cracks are found during the initial inspection required by paragraph (g)(1) of this AD, review the airplane maintenance records to determine whether any taper pins have been replaced or reworked on the rudder final drive rod assembly.

(4) If a taper pin has ever been replaced or reworked, without exceeding the initial compliance time in paragraph (g)(1)(i) or (ii) of this AD, replace the rudder final drive rod assembly by following section 7, Removal and Installation Instructions for

Unserviceable Units, of SB 363, Issue 3 or SB 364, Issue 3, as applicable to your model airplane.

(5) As of the effective date of this AD, do not install a rudder final drive rod assembly P/N NB-45-0991 on any airplane unless:

- (i) The rudder final drive rod assembly is unused (zero hours TIS); or
- (ii) The taper pins in the rudder final drive rod assembly have never been replaced.

(6) As of the effective date of this AD, do not replace any taper pin on a rudder final drive rod assembly P/N NB-45-0991 installed on any airplane.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information or email: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68<sup>th</sup> Avenue, Denver, CO 80249; phone: (303) 342-1094; email: penelope.trease@faa.gov.

(2) Refer to European Aviation Safety Agency (EASA) AD 2018-0153, dated July 19, 2018, for more information. You may examine the EASA AD in the AD docket at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2021-0502.

(3) For service information identified in this AD, contact Britten-Norman Aircraft Limited, Commodore House, Mountbatten Business Centre, Millbrook Road East,



Southampton SO15 1HY, United Kingdom; phone: +44 20 3371 4000; fax: +44 20 3371 4001; email: [info@bnaircraft.com](mailto:info@bnaircraft.com); website: <https://britten-norman.com/approvals-technical-publications/>. You may review this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued on June 11, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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